ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

In the Matter of	)	MM Docket No. 99-25
Creation of a Low Power Radio Service	)	RM-9208 RM-9242

To: The Commission

REPLY COMMENTS OF FEDERAL SIGNAL CORPORATION

Federal Signal Corporation ("Federal Signal"), by its attorneys, submits these reply comments pursuant to the notice of proposed rulemaking released February 3, 1999 in the above-captioned proceeding.[1/] Federal Signal requests that the Commission decline to adopt suggestions submitted in comments in this proceeding that Channel 200 (87.9 MHz) be allocated for use by low power FM ("LPFM") radio stations.[2/] Use of Channel 200 by LPFM was not proposed by the Commission in the NPRM and would conflict with Federal Signal's pending

---

1/ *In the Matter of Creation of a Low Power Radio Service, Notice of Proposed Rulemaking, MM Docket No. 99-25*, FCC 99-6, rel. Feb. 3, 1999 (the "NPRM").

2/ Insofar as Federal Signal is aware, only one party submitted comments proposing use of Channel 200 for LPFM. *See*, Revised Comments of REC Networks dated May 10, 1999. REC Networks proposes allocating Channels 198, 199 and 200 (87.5, 87.7 and 87.9 MHz) for use by LPFM.

proposal to allocate Channel 200 for a higher and better use -- a new, nationwide public safety emergency warning radio system.[3/]

Founded in 1901, Federal Signal is a leading manufacturer and world-wide supplier of safety signaling and fire rescue products, industrial tools and safety vehicles. Its safety equipment includes police and fire siren and light bars, warning and hazardous area lighting and communications equipment (such as warning lights, status indicators intercom systems, horns, bells and sirens). Based on its extensive background and experience in public safety equipment and systems, Federal Signal has long believed that public safety would be enhanced by a more timely and effective radio-based emergency warning system. This belief has driven Federal Signal's efforts over the past several years to develop its proposal for an Emergency Radio Data System ("ERDS").[4/]

Created through a coordinated effort between AC Delco, Ford Motor Company and Federal Signal, ERDS is a highly effective low-power system for disseminating timely localized emergency information to motorists so that they may take appropriate action to avoid traffic accidents, oncoming emergency vehicles and weather-related disasters. Federal Signal holds a Channel 200 experimental license for ERDS[5/] and has conducted extensive testing demonstrating ERDS works with minimal, if any, new interference created to adjacent channel FM stations or to analog TV channel 6. Channel 200 was selected by Federal Signal because of its nationwide

---

[3/] *See, In the Matter of Amendment to Parts 73 and 90 of the Commission's Rules to Authorize the Transmission of Emergency Signals on Channel 200*, Petition for Rulemaking (RM-9719), filed August 2, 1999 by Federal Signal Corporation.

[4/] In January 1993, the National Radio Systems Committee, sponsored by the Electronics Industry Association and the NAB, introduced the standard for transmitting data over a sub-carrier of the FM broadcasting band. This standard, known as the Radio Data System, is the foundation of ERDS.

[5/] See, WA2XNX, Brazos, Texas (File No. BPEX-961024MF). An application for renewal of license (FCC Form 311) for WA2XNX was filed on July 7, 1999.

availability,[6] the fact that it is located adjacent to the FM band where it can be received readily by FM receivers, and because it can be used by ERDS without raising significant interference issues.

On August 2, 1999, Federal Signal filed a petition for rulemaking (the "Petition") formally requesting the Commission to amend Parts 73 and 90 of the Commission's Rules to allocate Channel 200 (87.9 MHz) nationwide for the exclusive use and operation of ERDS by existing and future public safety licensees. The Petition demonstrates a compelling public interest case for ERDS as a system that largely eliminates existing radio warning system flaws. For example, in order to receive a warning using existing systems, motorists must take an active role in receiving the warning by tuning their radio to the appropriate channel or turning off the radio to receive external aural signals. ERDS automatically activates a motorist's radio, tunes it to the proper input channel and then retunes the radio following transmission of the emergency message.[7] The automatic operation of ERDS can be expected to yield significant public interest benefits in a variety of situations including, for example, the motorist who fails to hear approaching emergency vehicles due to improved sound insulation and more powerful audio equipment found in newer vehicles.

---

[6] The FCC's website reflects only two users of Channel 200; Federal Signal and St. Francis High School of Mt. View California (BMPED-980313MI). *See* http://www.fcc.gov/fcc-bin/fmq?fre=87.9.

[7] The prototype ERDS receiver would be factory-installed with a second front end tuner. The receiver continually scans 87.9 MHz in the FM band searching for a program identification code indicating that an ERDS transmitter is activated. When the receiver detects a transmission, the second front end tuner activates and decodes the two segments of the transmission. The first segment is the control information that "captures" the radio receiver. Thus, if the radio is turned off, the receiver processes a special digitized command that turns it on and tunes it to the prescribed frequency of 87.9 Mhz. If the radio is being used to play a cassette or compact disc, the receiver overrides and pauses the "play" function and tunes the radio to the prescribed frequency. If the radio is in use, the ERDS system retunes the radio to 87.9 Mhz. Concurrently, the ERDS decodes the second segment of the transmission, the emergency message. The message is transmitted for both text and aural display, in a continuous loop. The ERDS plays the message through once at a predetermined volume, before returning the radio to its preexisting state.

The ERDS signal also has the advantage of being a low-powered, localized signal that will not intrude on radio listening except in the immediate area of the emergency event. Thus, ERDS effectively reaches only those motorists and other members of the public that the public safety official intends to reach. Moreover, because ERDS will be installed in car radios during the manufacturing process, it will require no separate cash expenditure by members of the general public, thereby ensuring that motorists are capable of reaping the benefits of the ERDS, effectively for free.

The fact that existing warning systems are generally stationary imposes an additional limitation on the ability of public safety organizations to issue timely warnings of transient conditions to motorists and others in the specific area most immediately affected by an emergency situation. Although an ERDS signal may be broadcast from a stationary site (such as the entrance to a bridge or a railroad crossing) as well, ERDS is unique because it can be used by public safety vehicles and personnel as they move within traffic, as well as once they arrive at the scene. Equipped with a mobile ERDS transmitter, public safety officials will be able to respond to and warn motorists of rapidly changing traffic and weather conditions in time for motorists to take appropriate action. Due to the fact that no current warning system provides the degree of practical and public interest benefits found in ERDS, Federal Signal's proposal has received support from law enforcement officials and emergency teams nationwide.[8/] ERDS will provide police, fire, rescue and other public safety organizations, as well as the general motoring public, with a powerful life-saving tool.

Federal Signal submits that ERDS, as an application that would serve critical public safety needs, should be recognized as meriting the highest order of priority in the Commission's

---

8/ *See*, Petition, Attachment A.

public interest analysis when it comes to spectrum allocation determinations. Allocation of additional spectrum by the FCC for public safety use was mandated by Congress in the Balanced Budget Act of 1997.[9/] Codified as Section 337(c) of the Communications Act, the Balanced Budget Act of 1997 directs the Commission to license unused frequencies for public safety services, and to waive any requirement of the Act or the Commission's rules (other than regulations regarding harmful interference) to the extent required to permit the use of unassigned frequencies for the provision of public safety services. The Commission has acknowledged its obligations under Section 337(c) "to provide spectrum sufficient for public safety services to meet current and projected communications requirements, including innovative technical applications."[10/] As an innovative technical public safety application that would employ a virtually unused frequency (Channel 200), ERDS fully meets the Commission's obligations under the Balanced Budget Act of 1997.

Conversely, there is clearly no critical need for the Commission to consider allocation of additional frequencies to the LPFM service beyond the existing FM band as already proposed in the NPRM. As the Commission's records reflect, the nation is already well served by existing AM, FM and TV broadcast outlets, and the Commission's LPFM proposal, if adopted, would add many more to this total. In contrast, there is no public safety warning system comparable to ERDS presently available to the American public. The NPRM in this proceeding proposes to license LPFM stations throughout the country on FM Channels 201 - 300. Wisely, it does not

---

9/ Balanced Budget Act of 1997, Pub. L. No. 105-33, § 3004, 111 Stat. 251 (1997).

10/ *In the Matter of The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, Establishment of Rules and Regulations for Priority Access Service, First Report and Order and Third Notice of Proposed Rulemaking in WT Docket No. 96-86*, FCC 98-191, released September 29, 1998, ¶4.

propose use of Channel 200. For the foregoing reasons, the Commission is urged to continue to limit its consideration to FM Channels 201-300, thereby enabling use of Channel 200 for the ERDS public safety warning system.

Respectfully submitted,

FEDERAL SIGNAL CORPORATION

By: _____
M. Scott Johnson

By: _____
Francis E. Fletcher, Jr.

Gardner, Carton & Douglas
1301 K Street, N.W.
Suite 900, East Tower
Washington D.C. 20005
(202) 408-7100

Its Attorneys

Dated: September 17, 1999

DC01/313061.2